further advancement of the bone age and no further development of the secondary sexual characteristics. The bone age was appropriate for chronological age at the end of treatment. However, we must mention that two further relapses of the autonomous ovarian cyst occurred during the period of treatment.

Patient No. 6 experienced an episode of precocious pseudopuberty due to an autonomous ovarian cyst at the age of 6.3 years. After the first relapse of the ovarian cyst, breast development continued for a year although the cyst had regressed spontaneously. We considered this progression of breast development as a consequence of the maturation of the GnRH pulse generator due to repeated exposure to oestrogen. At the age of 8 years, her growth velocity was 8.4 cm/year and her bone age was advanced by 2 years with a decrease of height potential. Because of this evolution we began treating the girl with a GnRH agonist at the age of 9 years. Up to now, aged 10.5 years the child has experienced one further relapse of the ovarian cyst while on treatment with a GnRH agonist.

Patient No. 10 experienced her first episode of precocious pseudopuberty due to an autonomous ovarian cyst at the age of 4.7 years. At this time, bone age was advanced by 1.8 years. Four months later, the girl experienced the first relapse of the autonomous ovarian cyst. At the age of 5.1 years, a second relapse of the autonomous ovarian cyst was observed. The girl showed no skin lesions characteristic of McCune-Albright syndrome. We performed a radionuclide bone scan, which did not reveal any abnormalities. After the second relapse of the autonomous ovarian cyst, the bone age of the girl was advanced by 3 years. Because of the rapidly advancing bone age, we started treating the girl with a GnRH agonist at the age of 5.2 years. Up to now, aged 5.7 years, the patient has experienced no further relapse of the ovarian cyst during the ongoing treatment.

Four of the present patients were reported in 1991 by Andler in the German literature (patients 1, 2, 3 and 5). They were included in this publication along with the available follow-up information for completion. Andler’s description refers to the initial episode.

**DISCUSSION**

The diagnosis of precocious pseudopuberty due to autonomous ovarian cysts is based on the history, clinical presentation, laboratory findings, and imaging, mainly by ultrasound. Girls with precocious pseudopuberty due to autonomous ovarian cysts present with signs of oestrogenisation, such as rapid bilateral breast development, vaginal discharge or bleeding, and swelling of the labia minora. The usual laboratory findings are elevated oestrogen levels with a suppressed gonadotropin response after GnRH-stimulation. In most cases, bone age is not advanced. Pelvic ultrasound examination can demonstrate unilateral or bilateral ovarian cysts (Figure 1). These findings, however, depend on the stage of the disease. Autonomous ovarian cysts develop and regress spontaneously at the latest after 2 to 3 months, while the clinical signs of sexual precocity may still be present after hormone levels are normalised and the ovarian cyst is not detectable by ultrasound.

Rodriguez-Macias et al reported that the diameter of the ovarian cyst, measured by sonography, at the initial episode is of great importance, as a diameter ≥9 mm is a strong indicator of autonomous ovarian activation. Millar et al came to a similar conclusion and reported that ovarian cysts associated with precocious pseudopuberty are generally larger than 2